



Messerschmitt Bf 109 G-6

Im Herbst 1941 befand sich die F-Serie der Bf 109 bereits seit einem halben Jahr im Einsatz. Trotz guter Ergebnisse, die mit ihrer ständigen Weiterentwicklung erzielt wurden, war man sich bei Messerschmitt der Notwendigkeit weiterer Verbesserungen des Flugzeugs bewusst. Die durchschnittlich geflogenen Geschwindigkeiten und Höhen vergrößerten sich insbesondere in den Luftkämpfen mit den westlichen Alliierten zusehends. Die Forderung nach einer druckbelüfteten Höhenjägervariante gehörte darum von Anfang an zum Forderungskatalog der G-Serie. Als deren Entwicklung angetrieben wurde, stand in Form des Daimler-Benz DB 605 A stand ein Aggregat zur Verfügung, welches diesen Zweck optimal erfüllen konnte. Basierend auf dem DB 601 besaß der DB 605 bei erhöhtem Hubraum und Verdichtungsverhältnis identische Abmessungen wie sein Vorgänger, die Integration in die Zelle der Bf 109 gestaltete sich somit relativ unkompliziert. Die größere Leistung und das höhere Drehmoment des Motors bedingten jedoch strukturelle Veränderungen an der Zelle, die das Leer- und Startgewicht der Maschine erhöhten (normales Startgewicht 3054 kg). In Kombination führte der Gewichts- und Leistungszuwachs gegenüber der F-Serie zu deutlich schlechteren Handhabung der Bf 109 G – ein Nachteil, den man zugunsten der augenscheinlich verbesserten Flugleistungen in Kauf nehmen musste. Die neue Variante, die als G-1 ab Februar 1942 in die Serienfertigung ging, hatte aber immer noch die gleiche Bewaffnung wie deren Vorgängerin, die „Friedrich“. Dies sollte sich erst mit der Einführung der parallel entwickelten G-5 und G-6 ändern, welche beide ab März 1943 der Truppe zugeführt wurde. Die G-5/G-6 verfügte wie die G-1 über eine durch den Motor feuernde MK 151/20 mm Kanone. Die über dem Motor angebracht MG 17 ersetzte man durch zwei MG 131 mit dem Kaliber 13 mm. Die Gurtzuführung der verstärkten Bewaffnung machte eine aerodynamische Überarbeitung der Motorabdeckung notwendig, was der Maschine die charakteristischen „Beulen“ schenkte. War die G-5 noch mit einer Druckkabine ausgestattet, wurde darauf bei der G-6 verzichtet – alle anderen technischen Merkmale blieben identisch. Der Preis für die stärkere Bewaffnung war eine weitere Zunahme des Leergewichtes was zu einer nochmaligen Reduzierung der Flugleistungen führte. Die beiden neuen Varianten übernahmen standardmäßig das bei den späteren Maschinen der G-3 und G-4 eingeführte verstärkte Fahrwerk mit größeren Laufrädern (860x160 mm). Erkennbar war dies an den tropfenförmigen Beulen auf den Tragflächenoberseiten. Die G-6 fand ab März 1943 bis zum Ende des Krieges an allen Fronten umfangreichen Einsatz. Sie war mit 13.000 Maschinen der meistgefertigste Typ der Bf 109, hatte jedoch zum Zeitpunkt ihrer Einführung bereits den Höhepunkt ihrer Entwicklung überschritten. Als Verbesserungen wurde ein überarbeiteter Kopfpilz für den Piloten (auch „Galland-Pilz“ genannt), ein verstärkter Antennenmast, vereinfachte MG-Abdeckbleche sowie eine neue Cockpithaube der Erla-Maschinenwerke eingeführt. Die Erla-Haube (oft fälschlicherweise als „Galland-Haube“ bezeichnet) ersetzte die alte Haube und die feste hintere Verkleidung durch eine neue, einseitige Aufklappung was die Sichtverhältnisse nach hinten um ein Vielfaches verbesserte. Eine weitere Überarbeitung erfuhr das Seitenleitwerk mit seiner Aufstockung und dem Einsatz eines höheren und großflächigeren Ruders. Dieses, für die Bf 109 G-10 entwickelte Seitenleitwerk, fand in die späten Produktionslose der G-6 Eingang und sollte die Flugstabilität verbessern. Um den Rückgang der Geschwindigkeit zu kompensieren, erhielten später G-6 den DB 605 AM Motor und die so genannte MW-50-Anlage mit Wasser/Methanol Gemisch. Dieses konnte bei Einspritzung in den Ladeluftkühler, die Motorleistung für etwa 10 Minuten auf 1800 PS steigern. Die meisten dieser teilweise in Feldwerkstätten eingebauten Rüstsätze und Veränderungen wurden bei Messerschmitt ab August 1944 in der Bf 109 G-14 als eigene Serie zusammengefasst.

Daten und Leistungen (Bf 109 G-6)

Länge: 8,94 m (29ft 4in); Wingspan: 9,524 m (31ft 6in); Wing Area: 16,05 m² (172,7 sq ft); Height: 2,60 m (8ft 6in on the ground) (9ft 6in); Engine: DB 605 A-1 with 1,475 PS for Bf 109 with 87 Octane; Maximum Speed (on Full-Power): 635 - 650 km/h (395 - 403 mph); Maximum Range: 620 km (385 mph), with 300 l Addition Fuel tank 900 km (560 miles); Landing Speed: 135 km/h (84 mph); Take-off Run: 400 m (1312 ft); Service Ceiling: 12.000 m (39360 ft); Propeller: VDM 9-1206710; Durchmesser: 3,00 m (9ft 10in); Propeller Area: 307 m² (760 sq ft); Crew: 1 Pilot; Empty Weight: 2.250 kg (4950 lb); Maximum Take-off Weight: 3.400 kg (7500 lb); Standard Armament: 2x MG 131 (13 mm) each with 300 Rounds over the engine, 1x MG 151/20 (20 mm) with 200 Shots as Motorcannon, 1x 250 kg (550 lb) or four 50 kg (110 lb) Bombs in the Fighter-Bomber Role.

Messerschmitt Bf 109 G-6

By the autumn of 1941, the Bf 109 F-series had already been in service for half a year. Despite the good results that had been achieved through constant development, Messerschmitt were still aware of the need for further improvement of the aircraft. Average speeds and altitudes flown in aerial battles, particularly against the Western Allies had rapidly increased. The requirement for a pressurised high altitude variant of the fighter was on the list of demands for the G series right from the beginning. When development finally began a power unit that could perfectly fulfil this requirement was already available in the form of the Daimler-Benz DB 605A. Based on the DB 601, the DB 605 had an increased displacement and a higher compression ratio whilst remaining identical in size to its predecessor. Installation into the Bf 109 airframe therefore proved to be relatively straightforward. The higher performance and greater engine torque however, required structural changes in the airframe, which increased the empty and take-off weights of the aircraft (normal take-off weight 3054 kg). Together, the increase in weight and performance compared to the F-series led to significantly poorer handling qualities on the Bf 109 G - a disadvantage that had to be accepted in light of the apparently improved flight performance.

Known as the G-1 the new variant went into mass production from the February of 1942 but it still had the same armament as its predecessor „Friedrich“. This was to change with the introduction of the parallel developments G-5 and G-6, both of which were delivered to service units from March 1943 onwards. As on the G-1 the G-5/G-6 were fitted with a MK 151/20 mm cannon firing through the engine block. The MG 17 mounted above the engine was replaced by two 13 mm calibre MG 131s. The belt-feed to the uprated armament made a redesign of the aerodynamic engine cover necessary which gave the aircraft its characteristic „bumps“. Whilst the G-5 was still fitted with a pressurised cabin, the G-6 was not - all other technical characteristics remained the same. The price for the uprated armament was a further increase in curb weight resulting in a further reduction in flight performance. By default the two new variants were fitted with the strengthened landing gear and larger wheels (860x160 mm) introduced onto later aircraft of the G-3 and G-4 series. This was evident by drop shaped bulges on the upper surface of the wings. The G-6 was used extensively on all fronts from March 1943 until the end of the war. With a total of 13,000 machines she was the most prolific of all Bf 109s, but had the time of its introduction had already passed the peak of its development. Improvements included a revised head armour for the pilot (also called „Galland Armour“), a shorter aerial post, simplified MG cover plates and a new canopy from the Erla machine factory. The Erla canopy (often mistakenly called „Galland Canopy“) replaced the old canopy and fixed rear windows with a new, one-piece design which dramatically improved visibility to the rear. The tail was also modified by increasing its size and fitting a rudder that was taller and larger in area. Developed for the Bf 109 G-10 this tail was incorporated into later production batches of the G-6 and was intended to improve flight stability. In order to compensate for the reduction in speed, later G-6s received the DB 605AM engine and the so-called 50-MW unit using a mixture of water and methanol. This could be used to increase engine output to 1800hp for about 10 minutes through injection into the inter-cooler. Most of these modifications and alterations were built and fitted partly in field Workshops but were collectively adopted by Messerschmitt and from August 1944 incorporated into the Bf 109 G-14.

Data and Performance (Bf 109 G-6)

Length: 8,94 m (29ft 4in); Wingspan: 9,524 m (31ft 6in); Wing Area: 16,05 m² (172,7 sq ft); Height: 2,60 m (8ft 6in on the ground) (9ft 6in); Engine: DB 605 A-1 with 1,475 PS for Bf 109 with 87 Octane; Maximum Speed (on Full-Power): 635 - 650 km/h (395 - 403 mph); Maximum Range: 620 km (385 mph), with 300 l Addition Fuel tank 900 km (560 miles); Landing Speed: 135 km/h (84 mph); Take-off Run: 400 m (1312 ft); Service Ceiling: 12.000 m (39360 ft); Propeller: VDM 9-1206710; Diameter: 3,00 m (9ft 10in); Propeller Area: 307 m² (760 sq ft); Crew: 1 Pilot; Empty Weight: 2.250 kg (4950 lb); Maximum Take-off Weight: 3.400 kg (7500 lb); Standard Armament: 2x MG 131 (13 mm) each with 300 Rounds over the engine, 1x MG 151/20 (20 mm) with 200 Shots Through the Engine, 1 x 250 kg (550 lb) or four 50 kg (110 lb) Bombs in the Fighter-Bomber Role.

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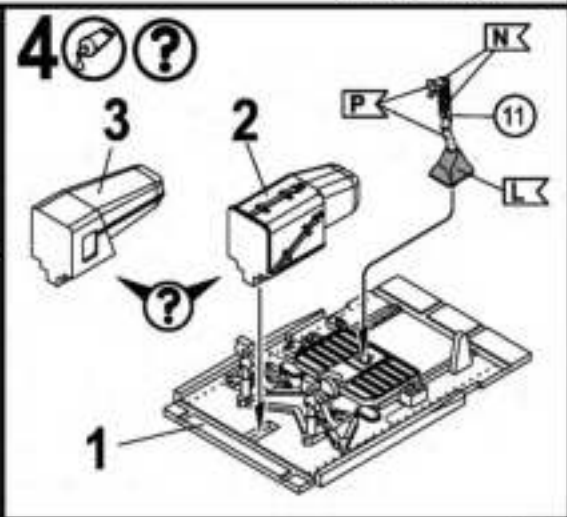
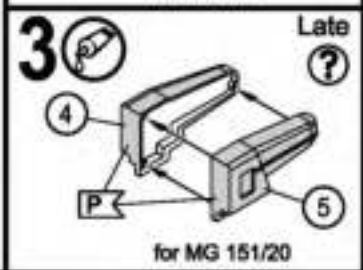
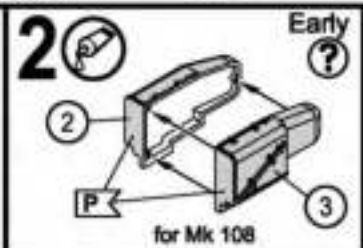
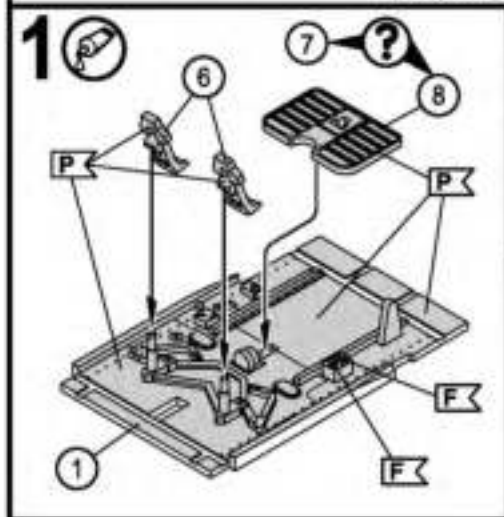
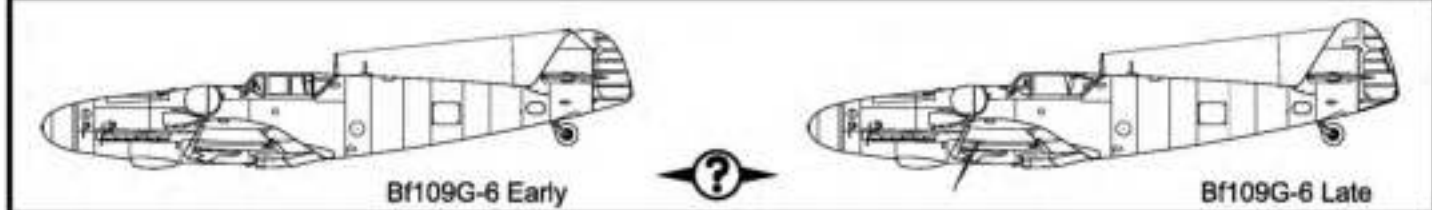
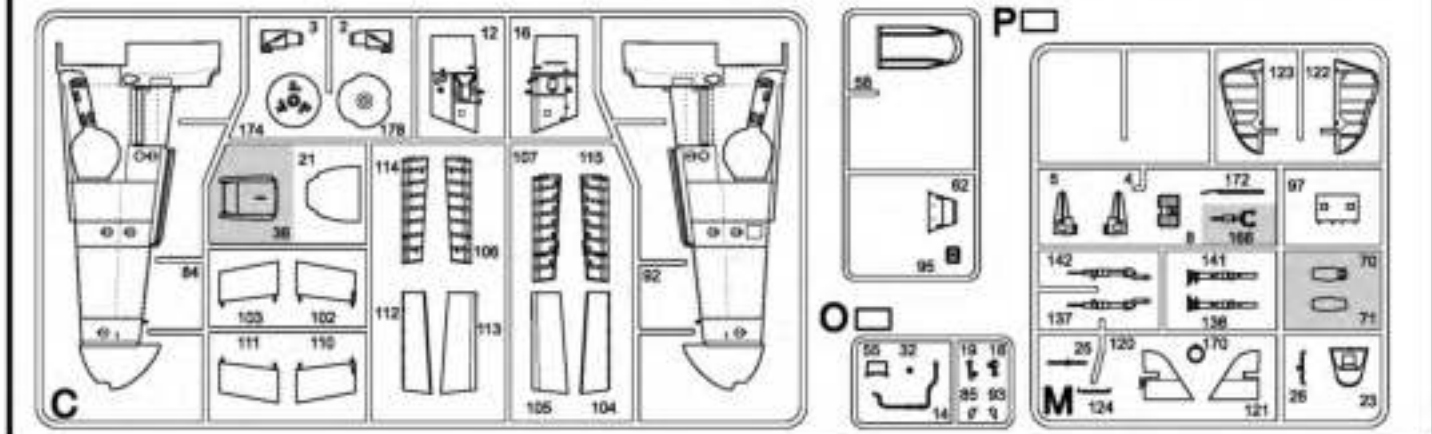
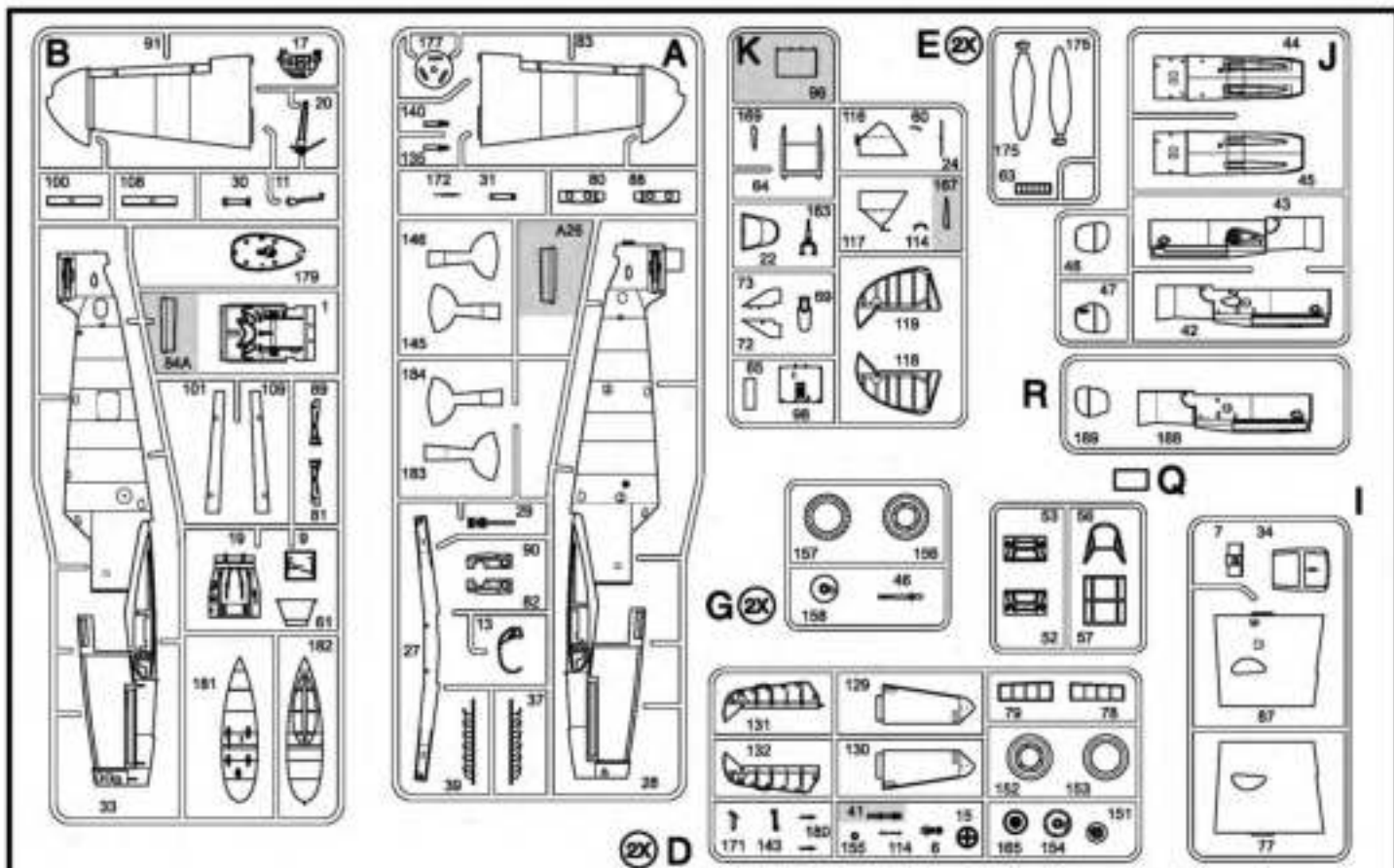
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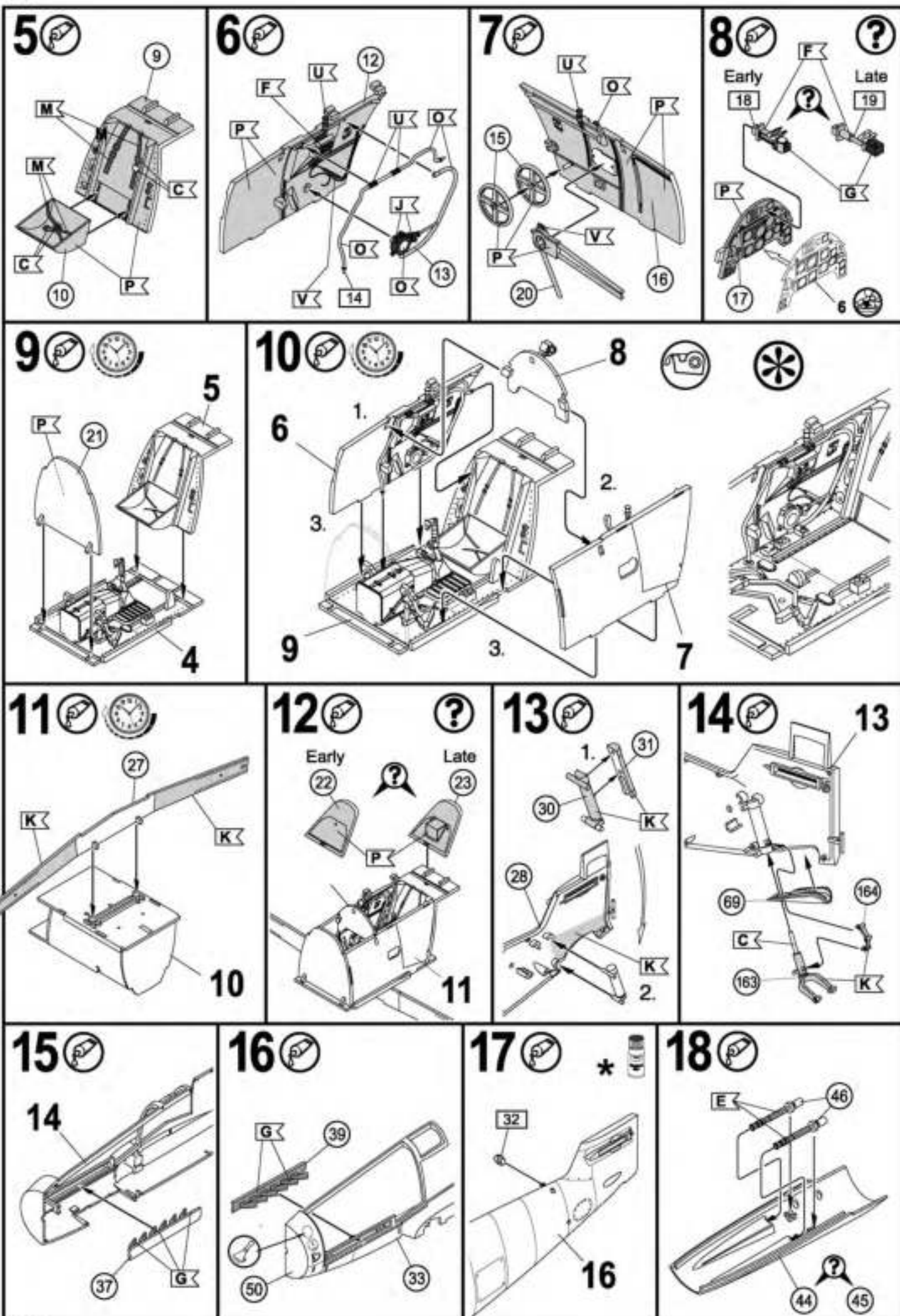
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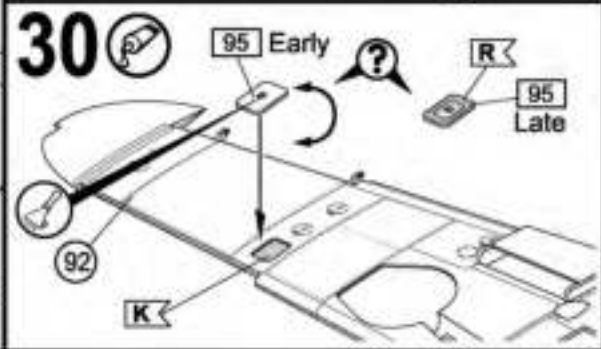
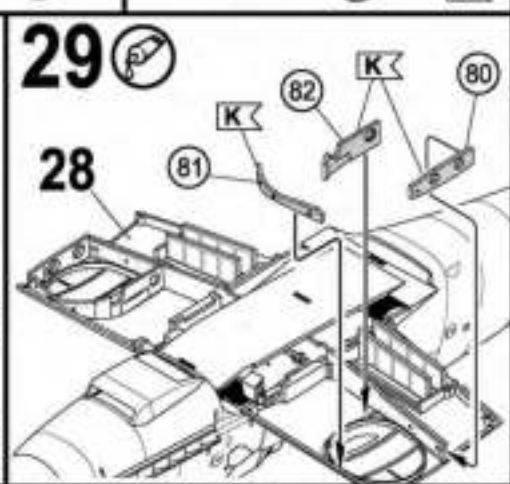
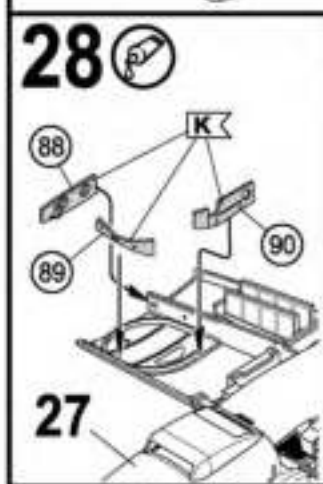
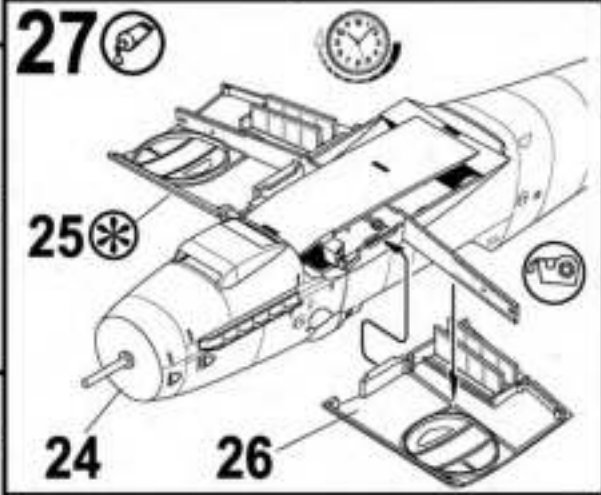
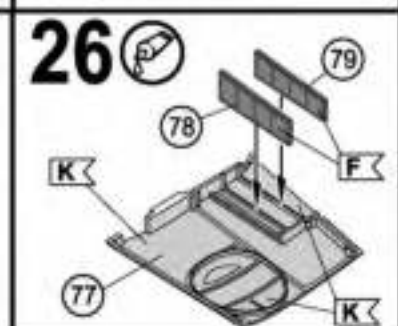
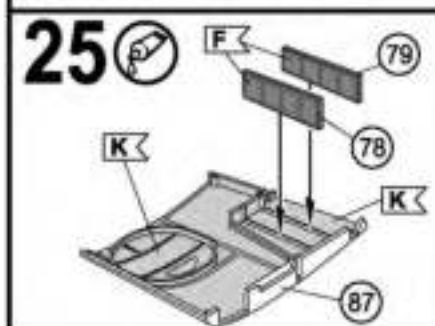
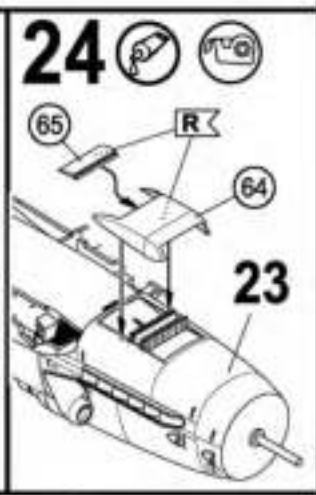
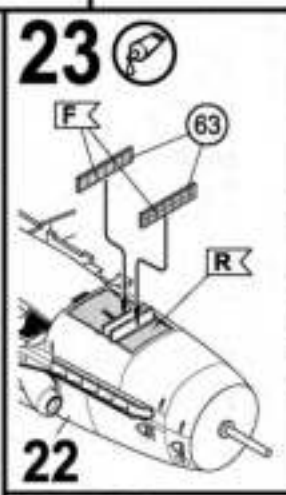
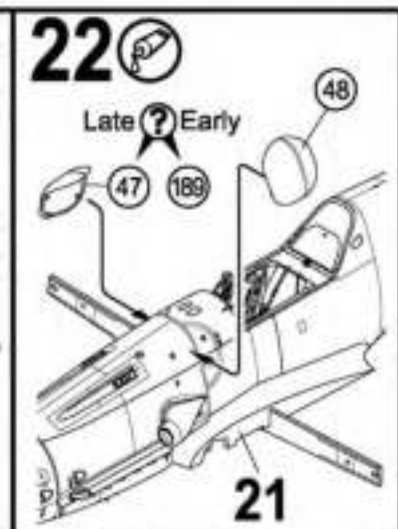
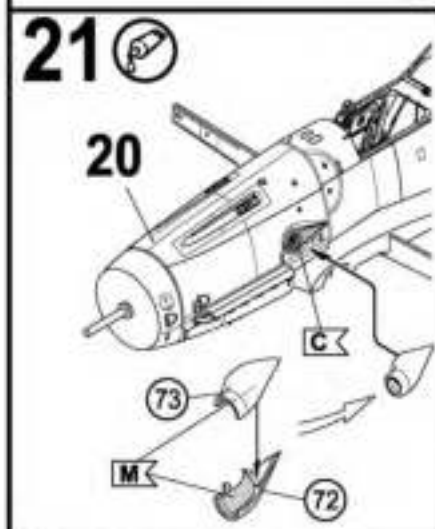
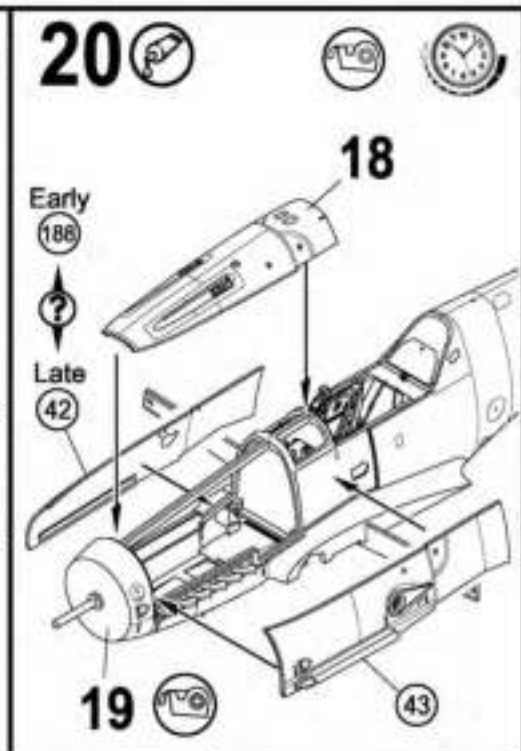
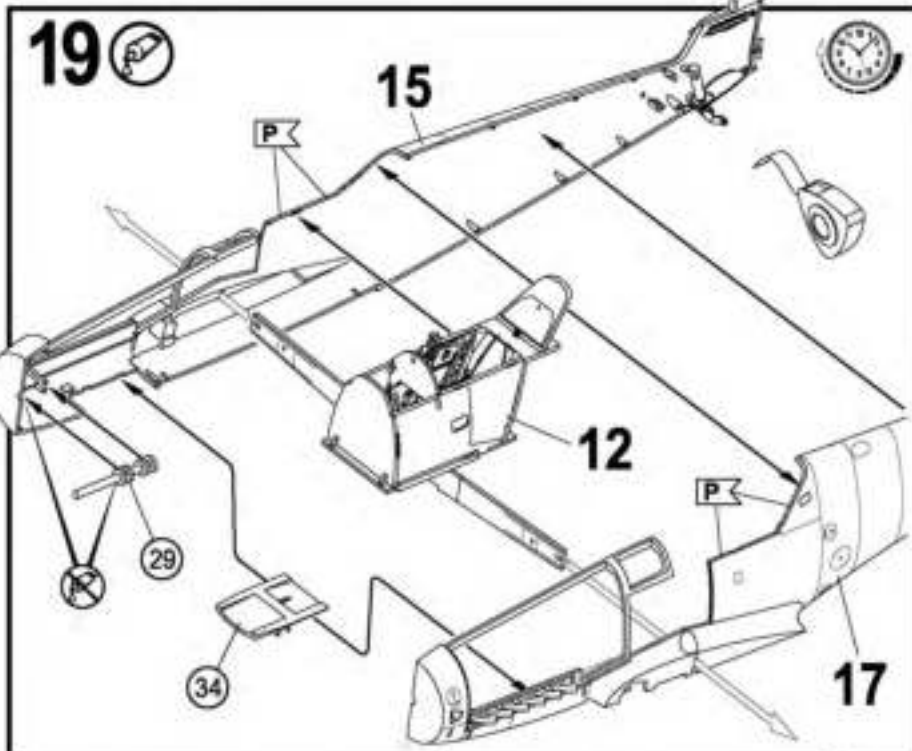
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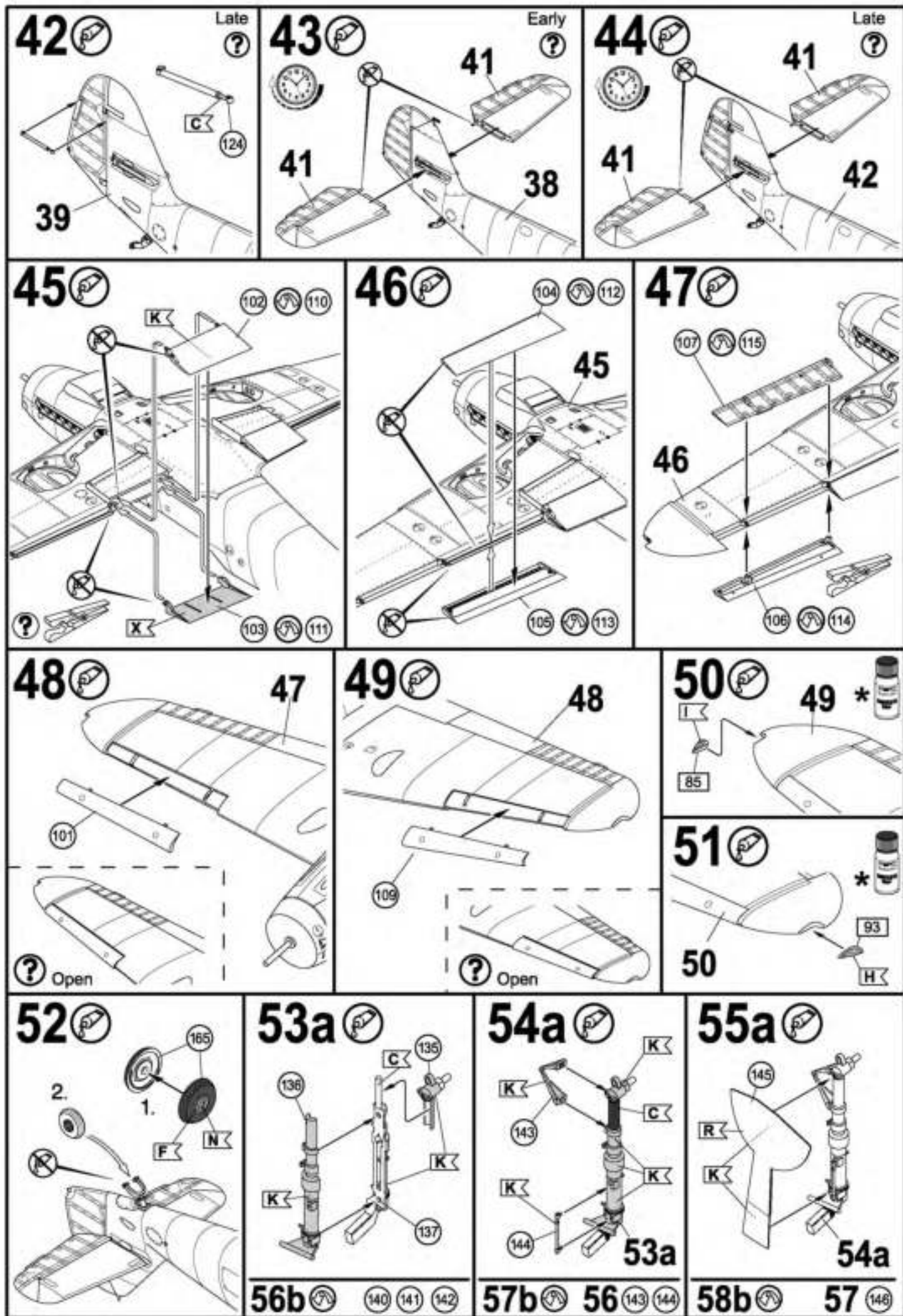
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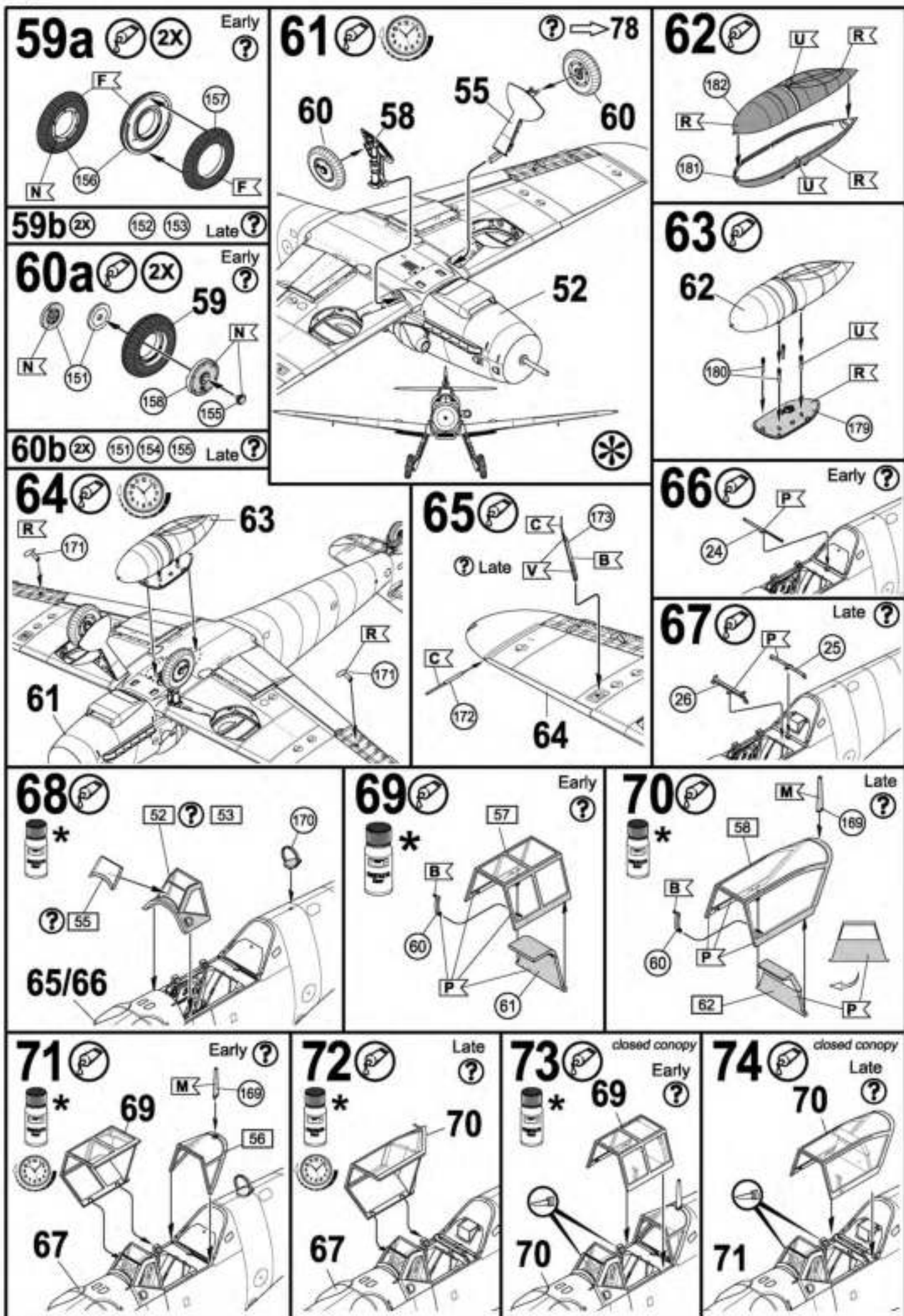
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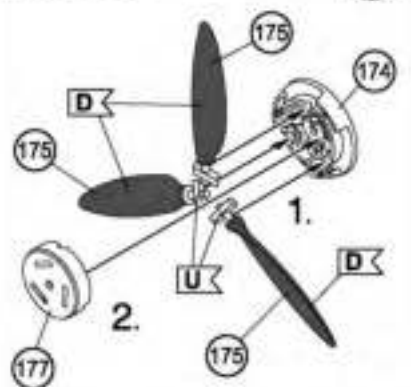
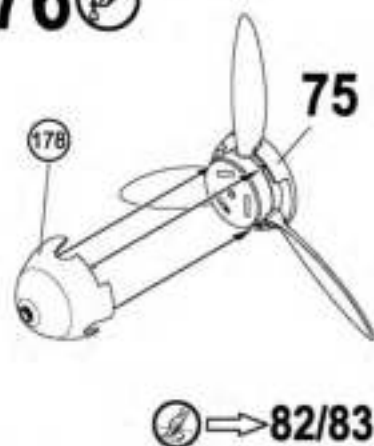




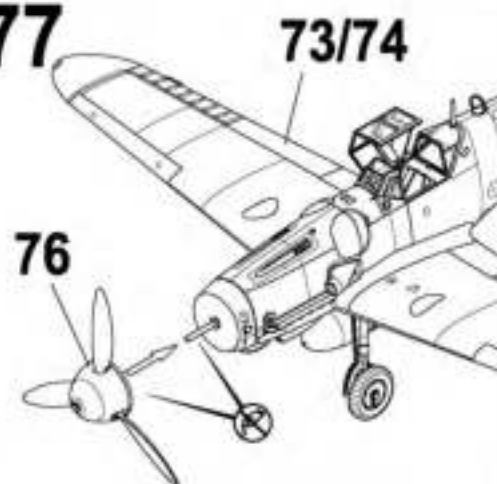




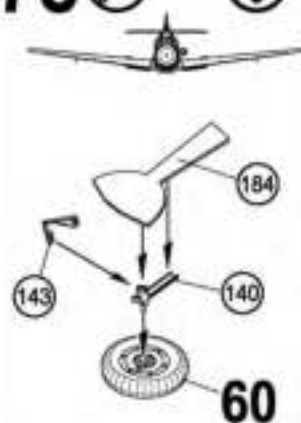


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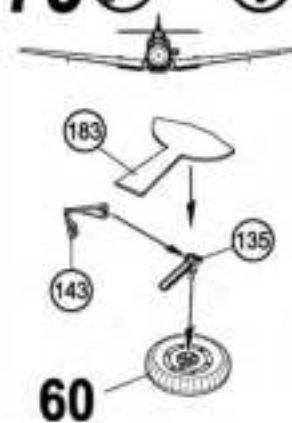
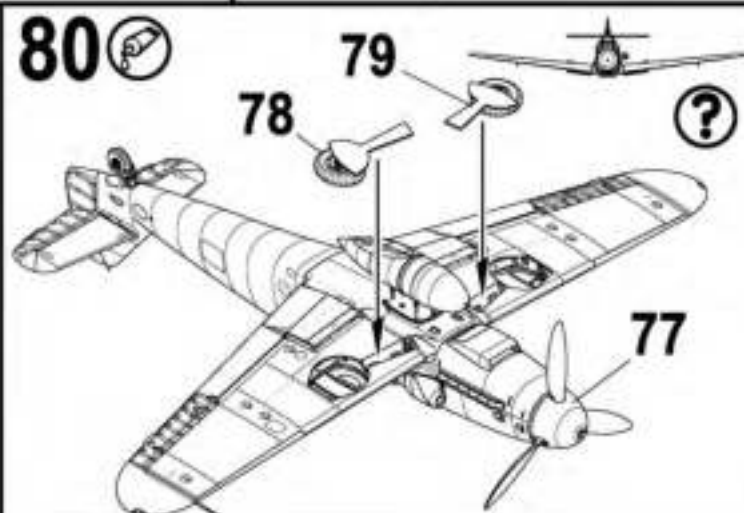
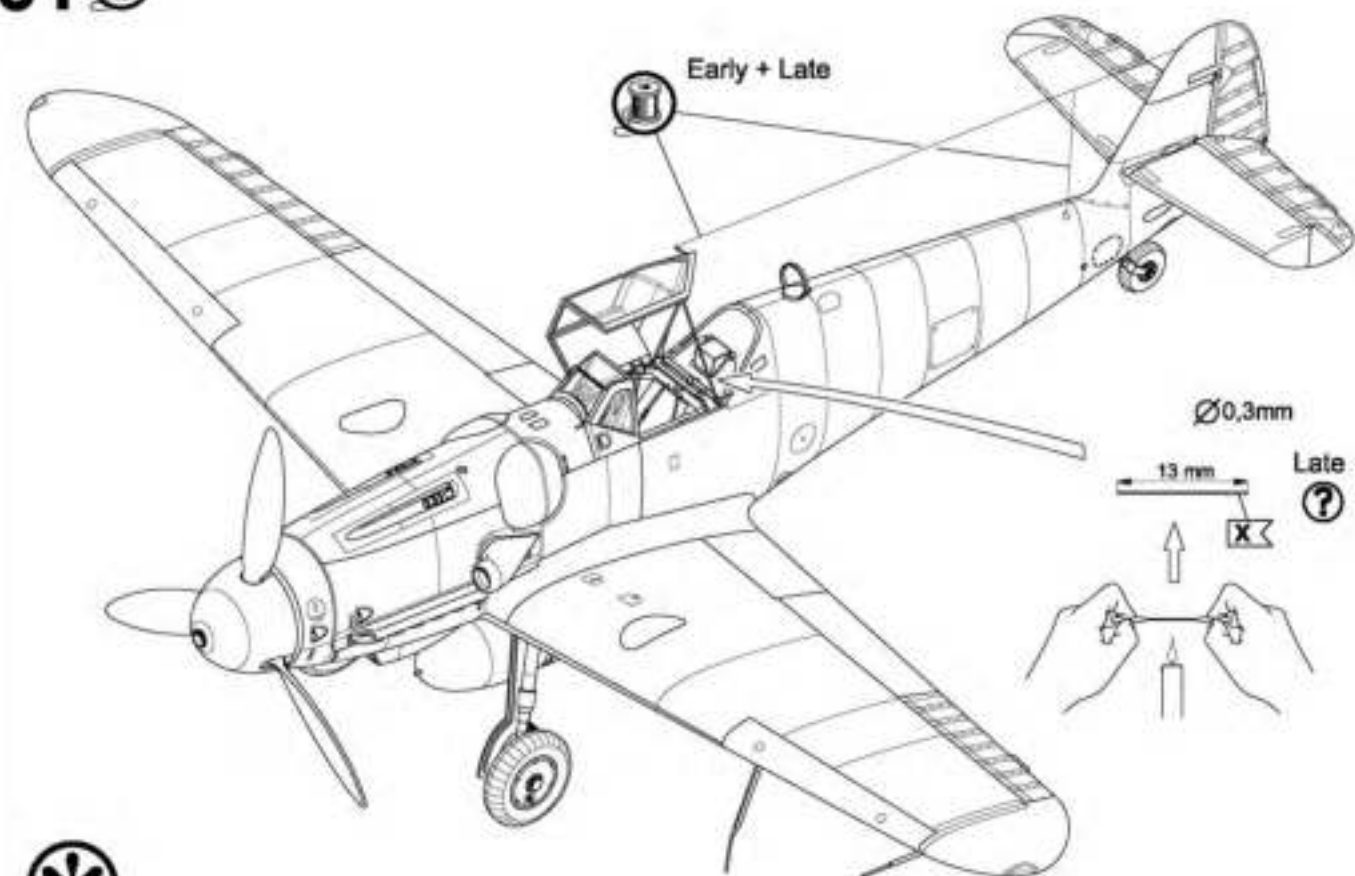
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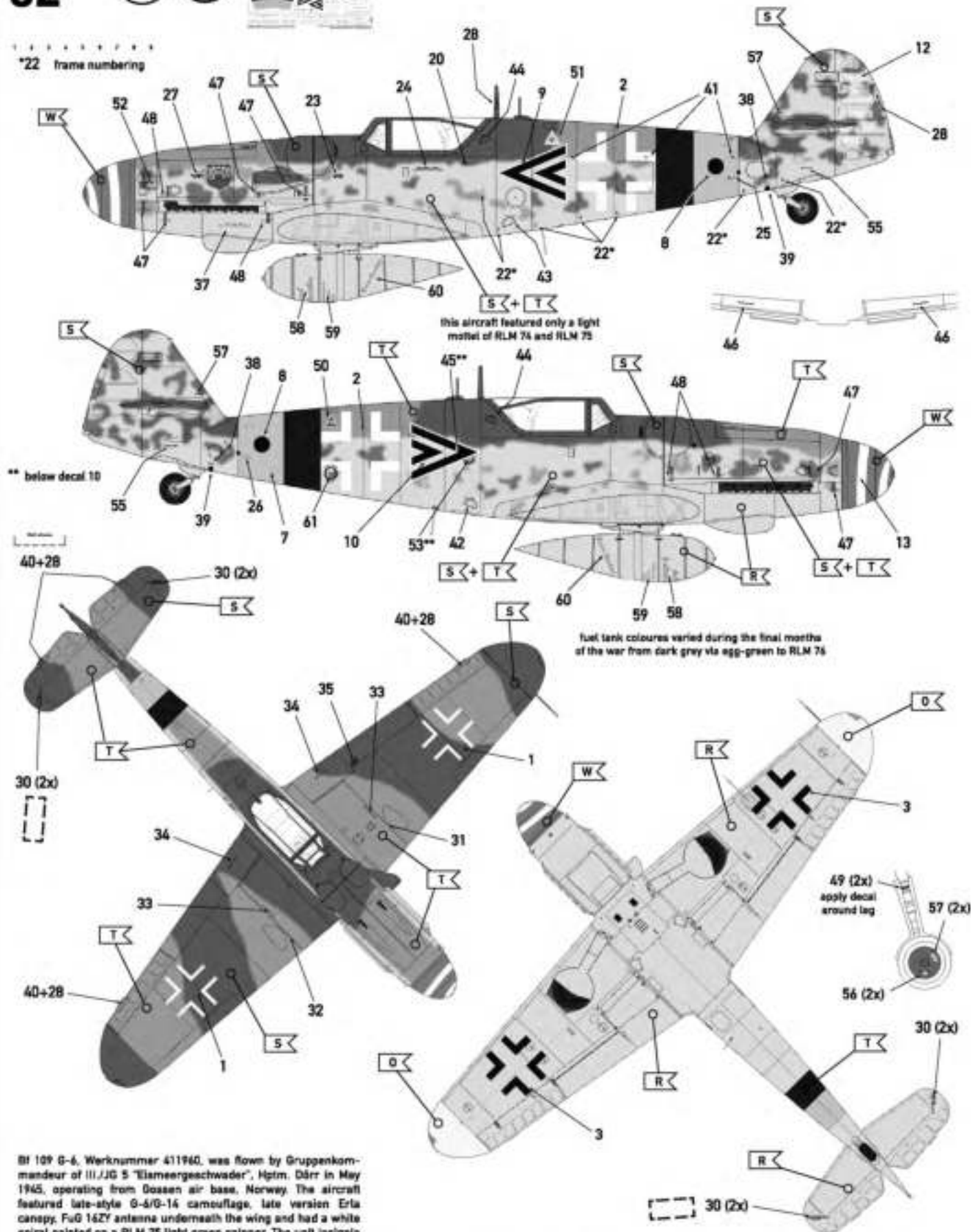
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Hauptmann Franz Dörr

Bf 109 G-6, W.Nr. 411960, Stab III./JG 5, Gossen, May 1945

*22 frame numbering



Bf 109 G-6, Werknummer 411960, was flown by Gruppenkommandeur of III./JG 5 "Elmsbergegeschwader", Hptm. Dörr in May 1945, operating from Gossen air base, Norway. The aircraft featured late-style G-5/G-14 camouflage, late version Erla canopy, FuG 16Z antenna underneath the wing and had a white spiral painted on a RLM 25 light green spinner. The unit insignia of JG 5 had only been applied on the port cowling. On the left side of the rudder this particular Bf 109 G-6 had 122 victory bars applied in white.

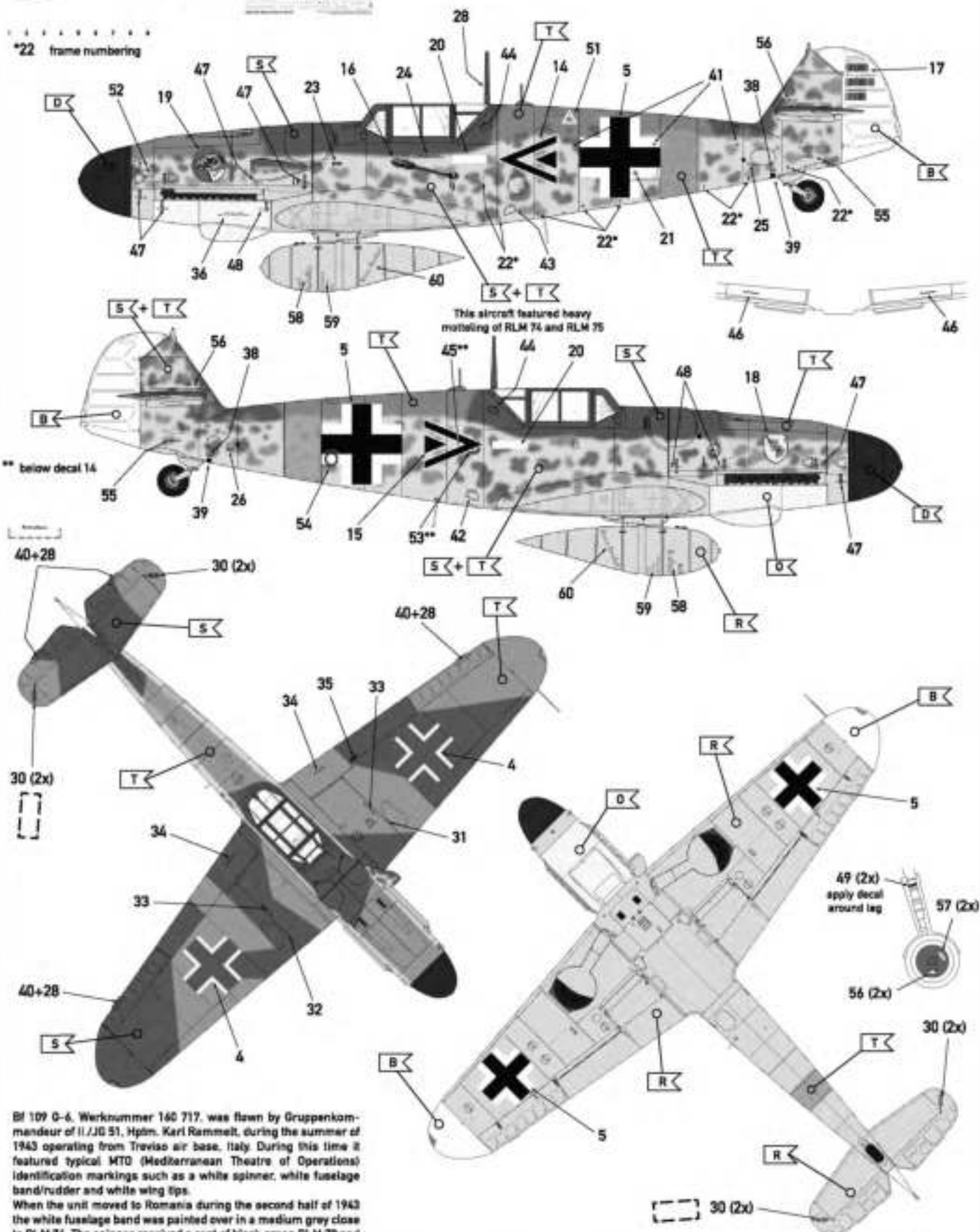
Several publications state, that Franz Dörr ended the war claiming 126 enemies, however, this is not true as Hptm. Dörr's personal log-book only confirms 122 aerial victories - all achieved in Norway.



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Hauptmann Karl Rammelt
Bf 109 G-6, W.Nr. 160717, Stab II./JG 51, Rumania, April 1944



Bf 109 G-6, Werknummer 160 717, was flown by Gruppenkommandeur of II./JG 51, Hptm. Karl Rammelt, during the summer of 1943 operating from Treviso air base, Italy. During this time it featured typical MTO (Mediterranean Theatre of Operations) identification markings such as a white spinner, white fuselage band/rudder and white wing tips.

When the unit moved to Rumania during the second half of 1943 the white fuselage band was painted over in a medium gray close to RLM 76. The spinner received a coat of black green RLM 70 and the cowling was painted yellow RLM 04. It was at Nisich/Romania, when the wooden club was painted onto Hptm. Rammelt's aircraft by the crew chief.

As photos of II./JG 51 aircraft in Rumania depict unit's Messerschmitts with white wing tips (e.g. Bf 109 G-6 of OFw. Elias Kühnlein), it can be assumed that this applied for Karl Rammelt's Bf 109 as well.

